

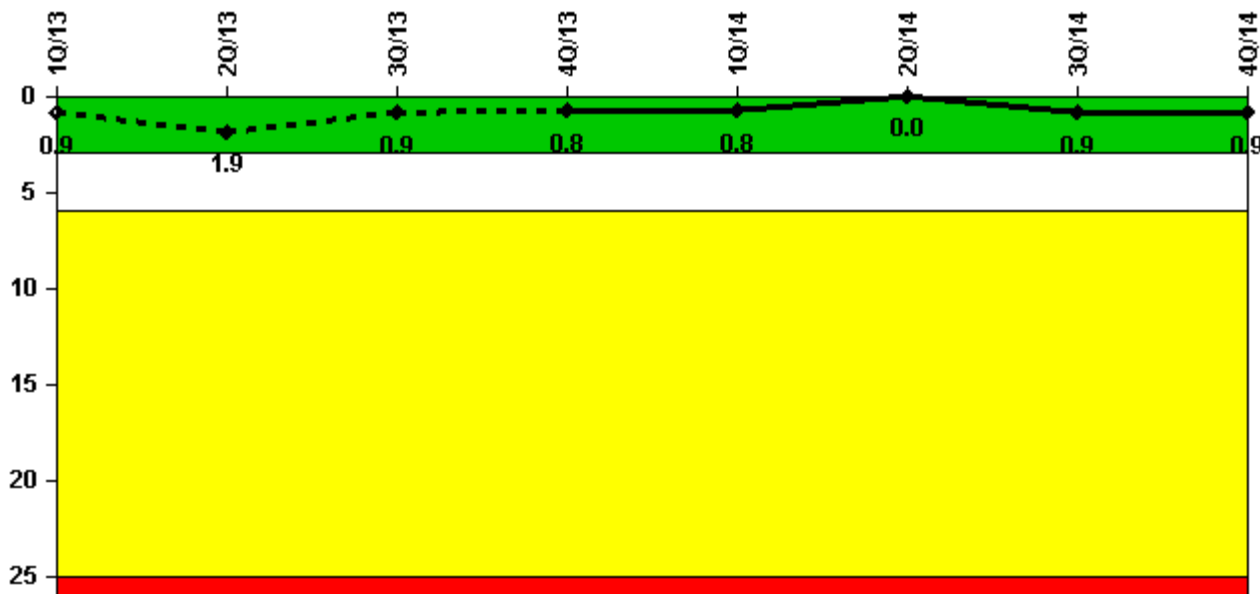
# Watts Bar 1

## 4Q/2014 Performance Indicators

The solid trend line represents the current reporting period.

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



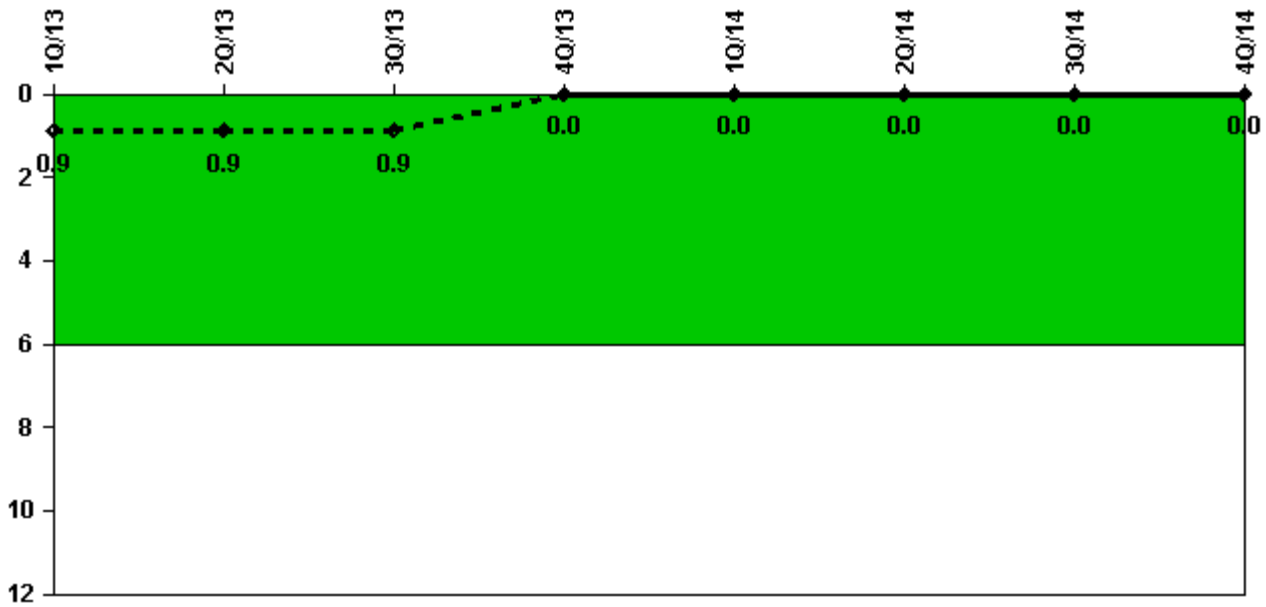
Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned scrams	0	1.0	0	0	0	0	1.0	0
Critical hours	2159.0	2144.0	2208.0	2209.0	1967.0	1446.9	2174.4	2209.0
<b>Indicator value</b>	<b>0.9</b>	<b>1.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>	<b>0.9</b>	<b>0.9</b>

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



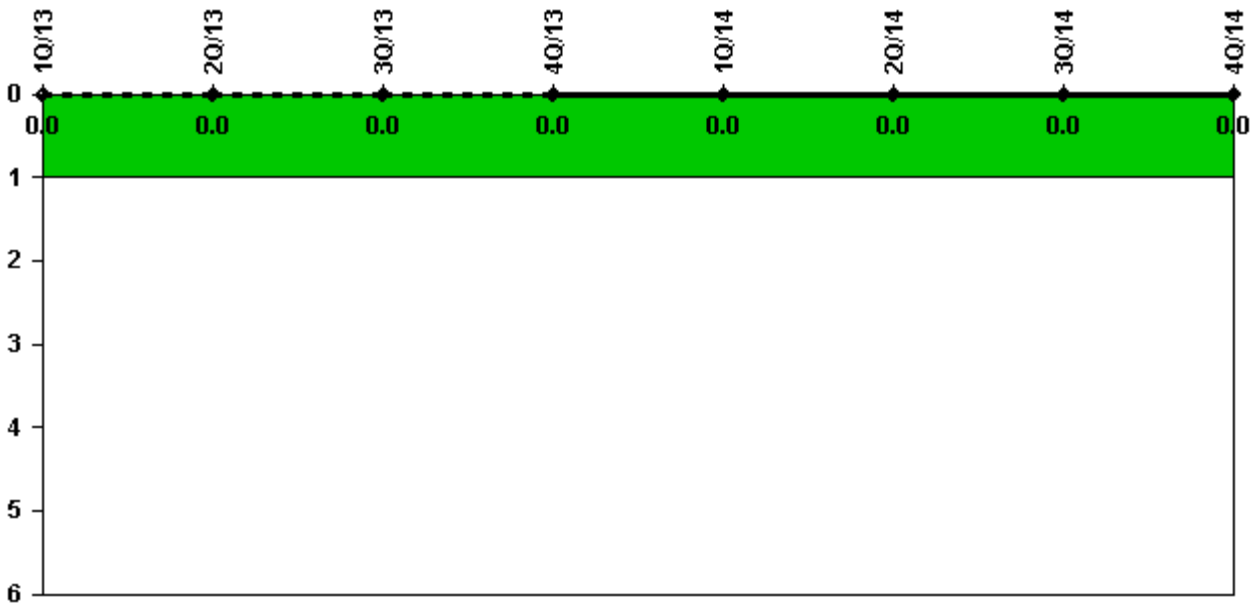
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Unplanned power changes	0	0	0	0	0	0	0	0
Critical hours	2159.0	2144.0	2208.0	2209.0	1967.0	1446.9	2174.4	2209.0
<b>Indicator value</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### Unplanned Scrams with Complications



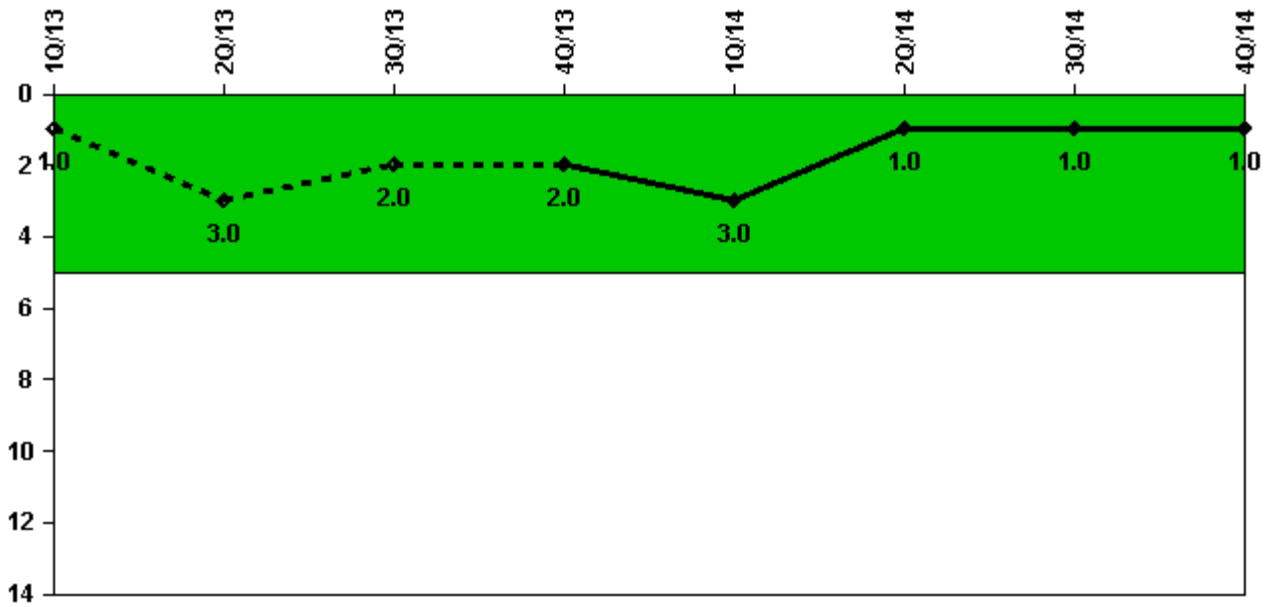
Thresholds: White > 1.0

#### Notes

Unplanned Scrams with Complications	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Scrams with complications	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Licensee Comments: none

### Safety System Functional Failures (PWR)



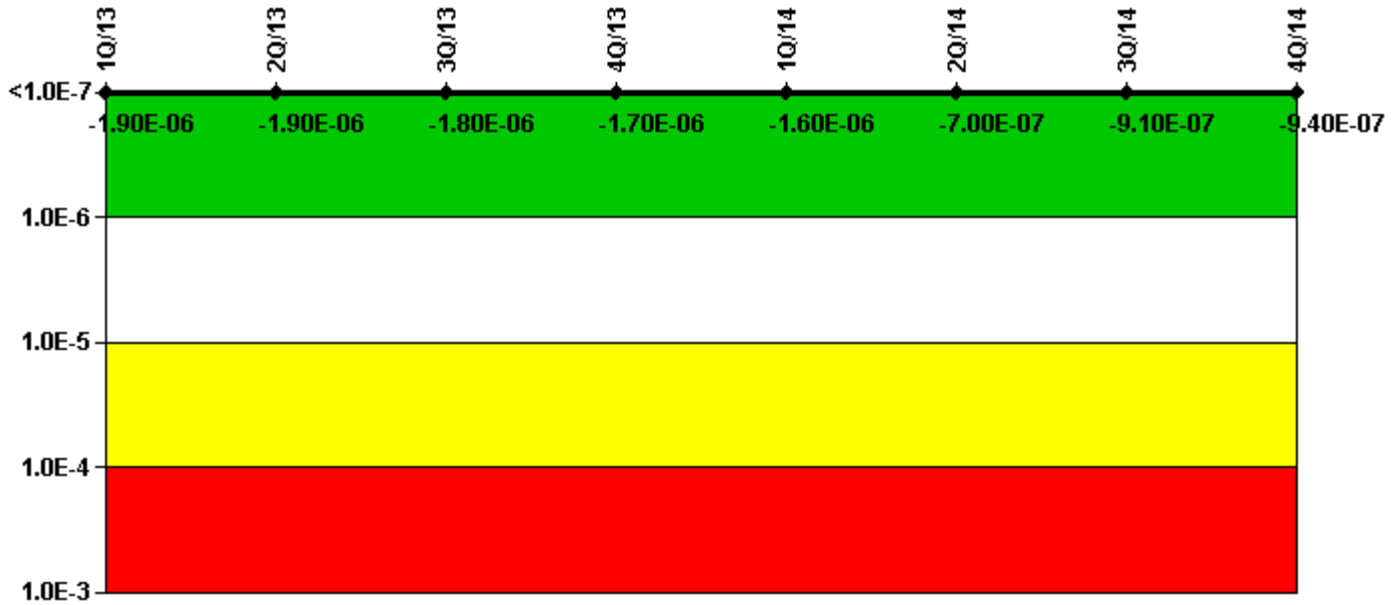
Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Safety System Functional Failures	0	2	0	0	1	0	0	0
<b>Indicator value</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>

Licensee Comments: none

### Mitigating Systems Performance Index, Emergency AC Power System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

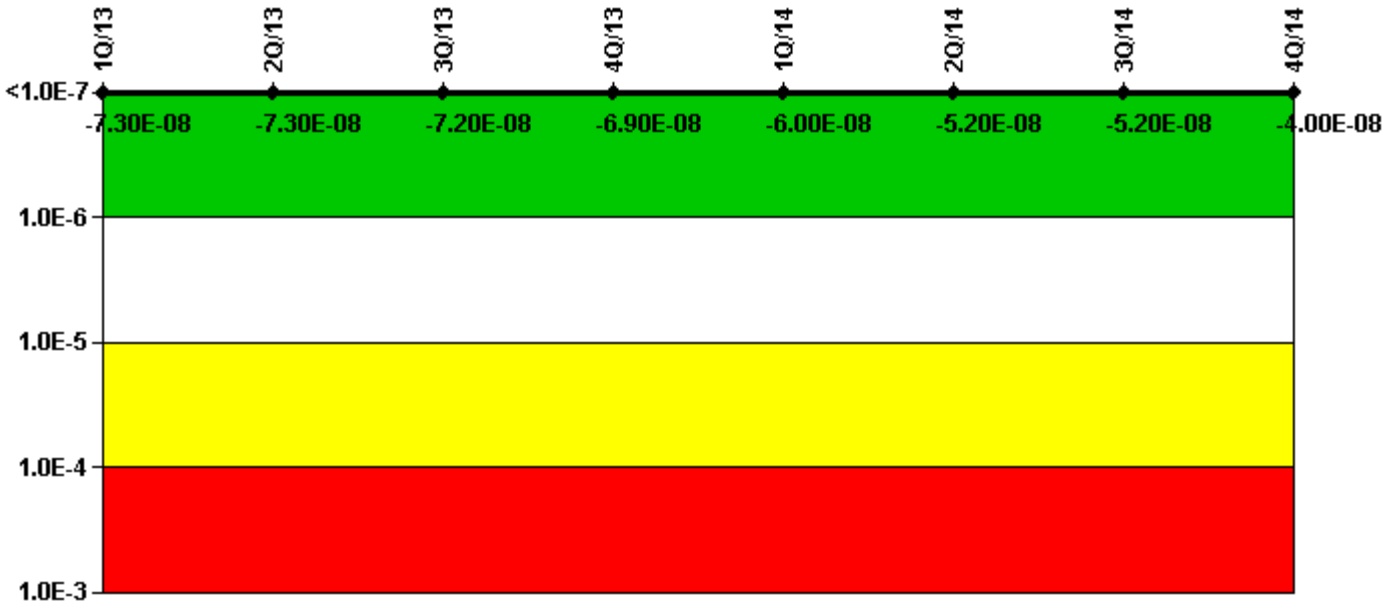
#### Notes

Mitigating Systems Performance Index, Emergency AC Power System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	1.05E-06	1.00E-06	1.00E-06	1.08E-06	1.22E-06	8.78E-07	6.52E-07	5.97E-07
URI ( $\Delta$ CDF)	-2.91E-06	-2.88E-06	-2.85E-06	-2.82E-06	-2.79E-06	-1.58E-06	-1.56E-06	-1.54E-06
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.90E-06	-1.90E-06	-1.80E-06	-1.70E-06	-1.60E-06	-7.00E-07	-9.10E-07	-9.40E-07

Licensee Comments:

2Q/14: PRA update due to model R1- MSPI Basis Document R7

### Mitigating Systems Performance Index, High Pressure Injection System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

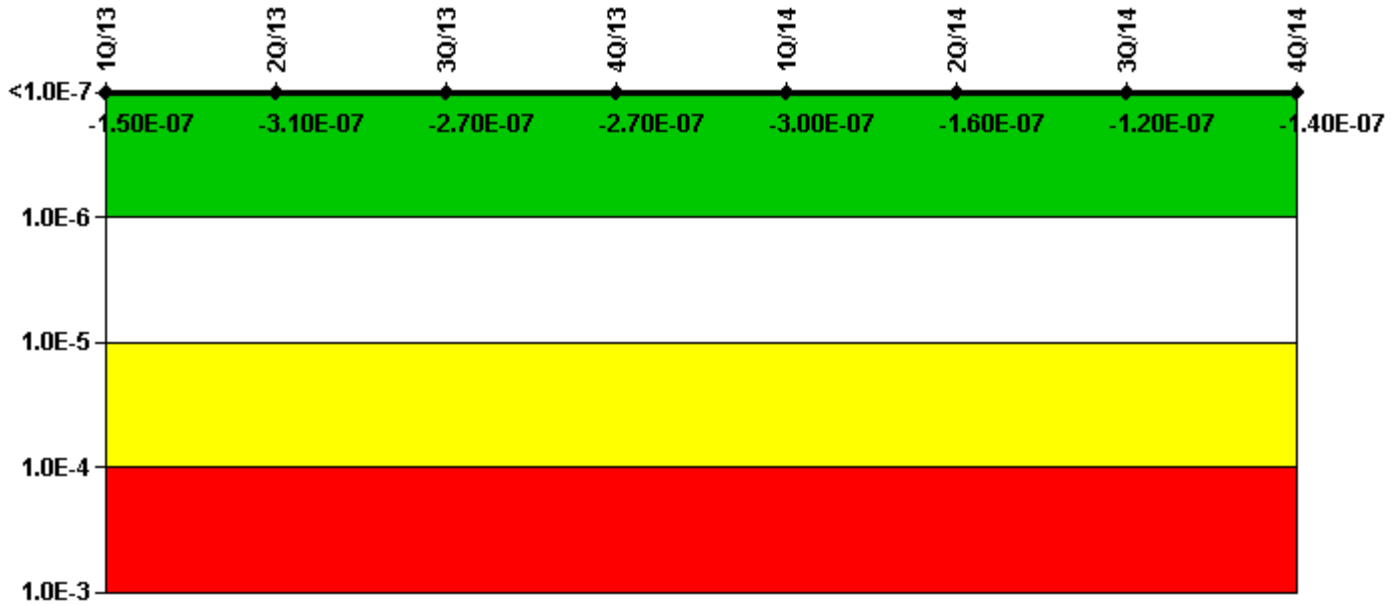
Mitigating Systems Performance Index, High Pressure Injection System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	-5.81E-08	-5.79E-08	-5.76E-08	-5.39E-08	-4.46E-08	-4.34E-08	-4.36E-08	-3.15E-08
URI ( $\Delta$ CDF)	-1.46E-08	-1.48E-08	-1.49E-08	-1.50E-08	-1.50E-08	-8.35E-09	-8.35E-09	-8.35E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-7.30E-08	-7.30E-08	-7.20E-08	-6.90E-08	-6.00E-08	-5.20E-08	-5.20E-08	-4.00E-08

Licensee Comments:

2Q/14: PRA update due to model R1- MSPI Basis Document R7

1Q/14: Changed PRA Parameter(s). PRA parameter was changed to support INPO troubleshooting. The PRA values was changed and returned to original value. No affect on indicator.

### Mitigating Systems Performance Index, Heat Removal System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

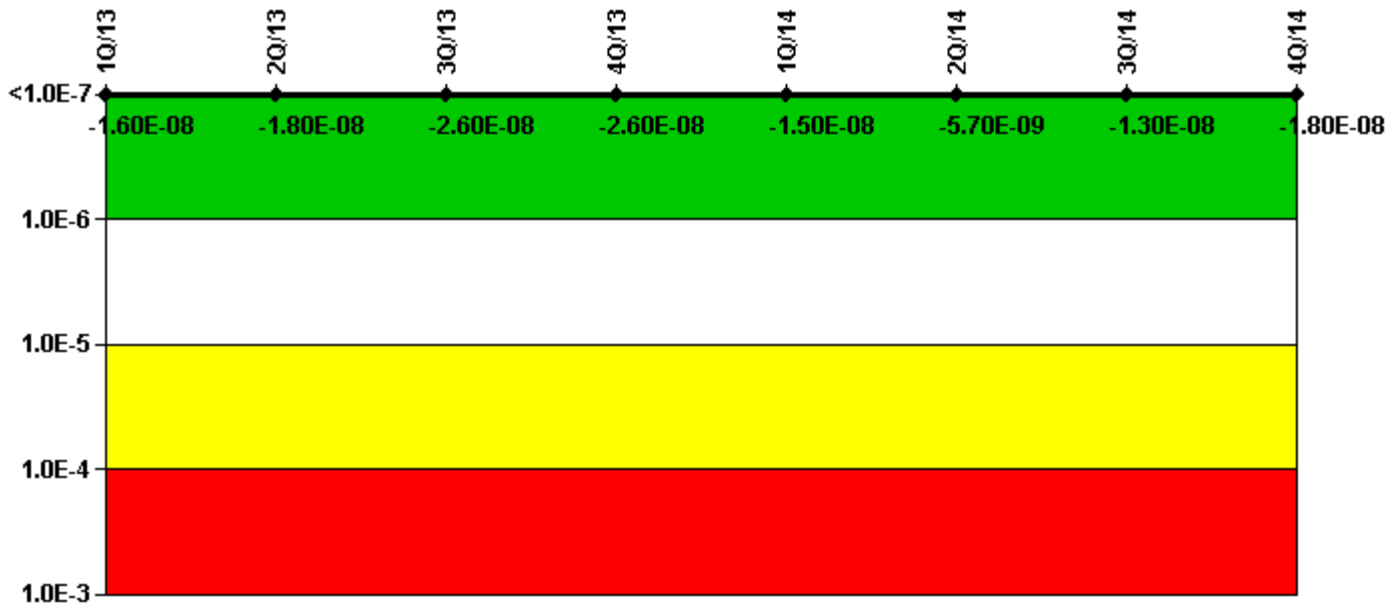
#### Notes

Mitigating Systems Performance Index, Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI ( $\Delta$ CDF)	2.31E-07	2.31E-07	2.66E-07	2.66E-07	2.36E-07	1.36E-07	1.76E-07	1.56E-07
URI ( $\Delta$ CDF)	-3.82E-07	-5.46E-07	-5.40E-07	-5.40E-07	-5.40E-07	-2.95E-07	-2.98E-07	-2.98E-07
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.50E-07	-3.10E-07	-2.70E-07	-2.70E-07	-3.00E-07	-1.60E-07	-1.20E-07	-1.40E-07

Licensee Comments:

2Q/14: PRA update due to model R1- MSPI Basis Document R7

### Mitigating Systems Performance Index, Residual Heat Removal System



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

#### Notes

Mitigating Systems Performance Index, Residual Heat Removal System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	2.75E-08	2.64E-08	1.90E-08	1.92E-08	3.19E-08	1.68E-08	9.99E-09	6.11E-09
URI (ΔCDF)	-4.40E-08	-4.44E-08	-4.48E-08	-4.51E-08	-4.68E-08	-2.24E-08	-2.31E-08	-2.38E-08
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	-1.60E-08	-1.80E-08	-2.60E-08	-2.60E-08	-1.50E-08	-5.70E-09	-1.30E-08	-1.80E-08

Licensee Comments:

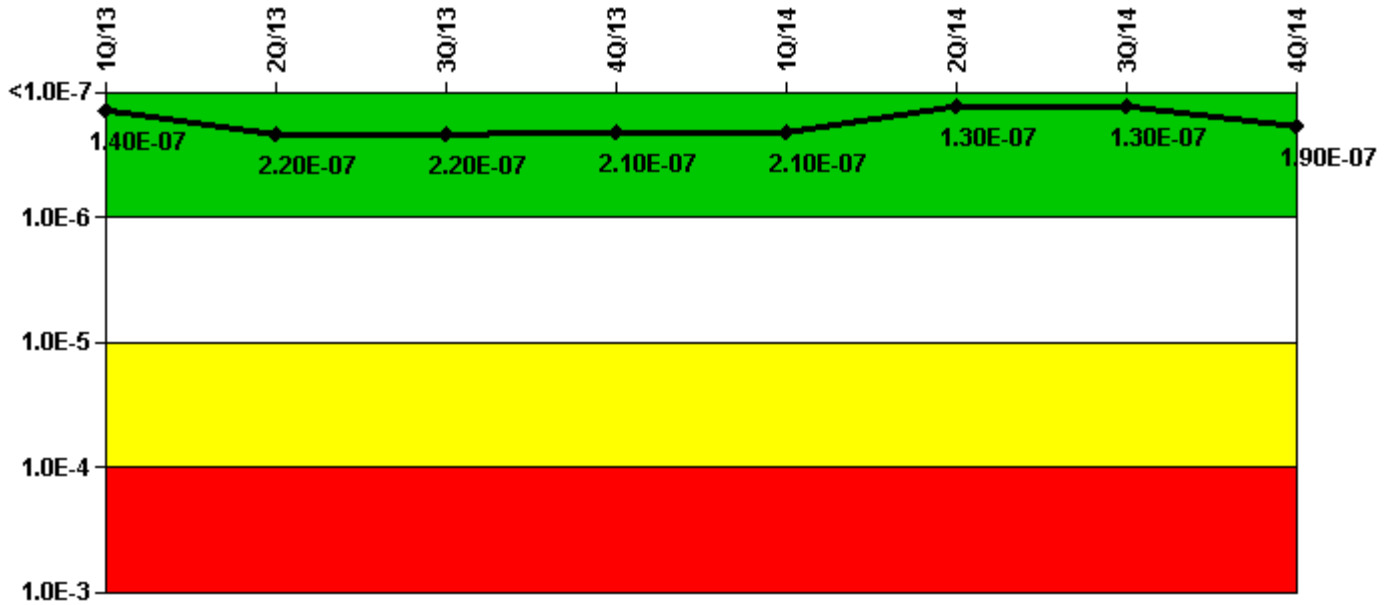
2Q/14: PRA update due to model R1- MSPI Basis Document R7

1Q/14: A modification was completed on 12/4/13 that added a cooling water monitored MOV in the Residual Heat Removal System boundary. The MSPI basis document R6 was approved on 4/15/14 to account for this impact. The PRA model was revised 2/7/14 which included this new component. The valve and PRA information has been added to INPO CDE database effective 1/1/14 so this quarter report includes this component.

1Q/14: Changed PRA Parameter(s).



### Mitigating Systems Performance Index, Cooling Water Systems



Thresholds: White > 1.00E-6 Yellow > 1.00E-5 Red > 1.00E-4

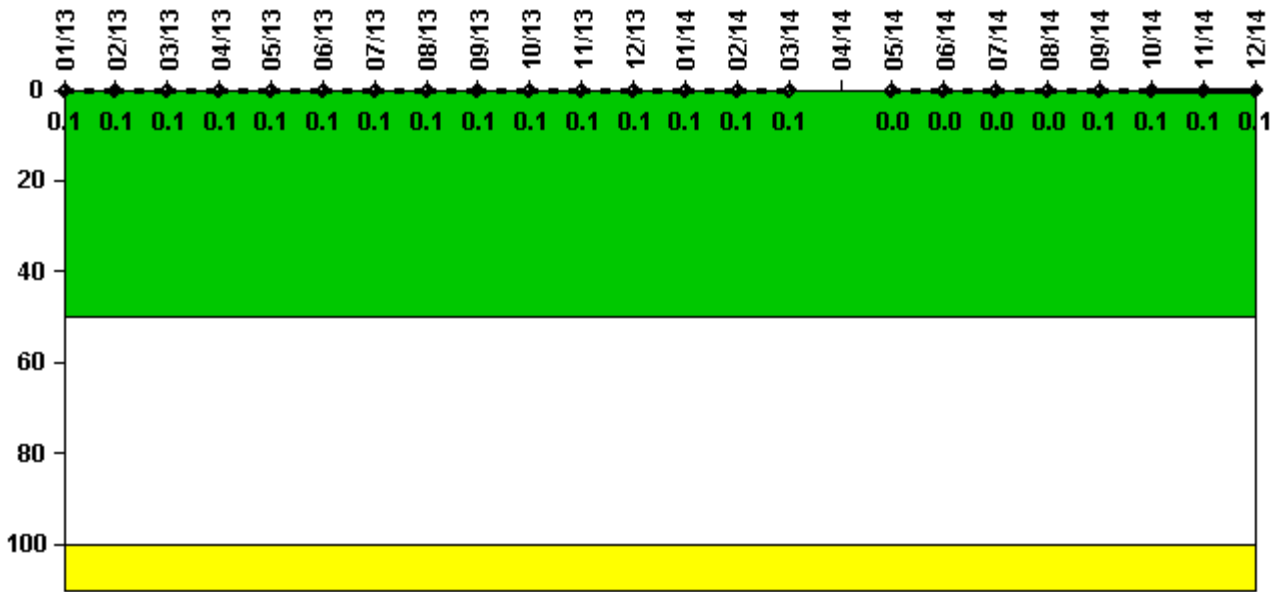
#### Notes

Mitigating Systems Performance Index, Cooling Water Systems	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
UAI (ΔCDF)	1.92E-07	2.11E-07	2.10E-07	2.07E-07	2.09E-07	1.30E-07	1.29E-07	1.91E-07
URI (ΔCDF)	-4.85E-08	6.04E-09	6.04E-09	-8.10E-10	-8.10E-10	1.14E-09	1.14E-09	1.14E-09
PLE	NO	NO	NO	NO	NO	NO	NO	NO
Indicator value	1.40E-07	2.20E-07	2.20E-07	2.10E-07	2.10E-07	1.30E-07	1.30E-07	1.90E-07

Licensee Comments:

2Q/14: PRA update due to model R1- MSPI Basis Document R7

### Reactor Coolant System Activity



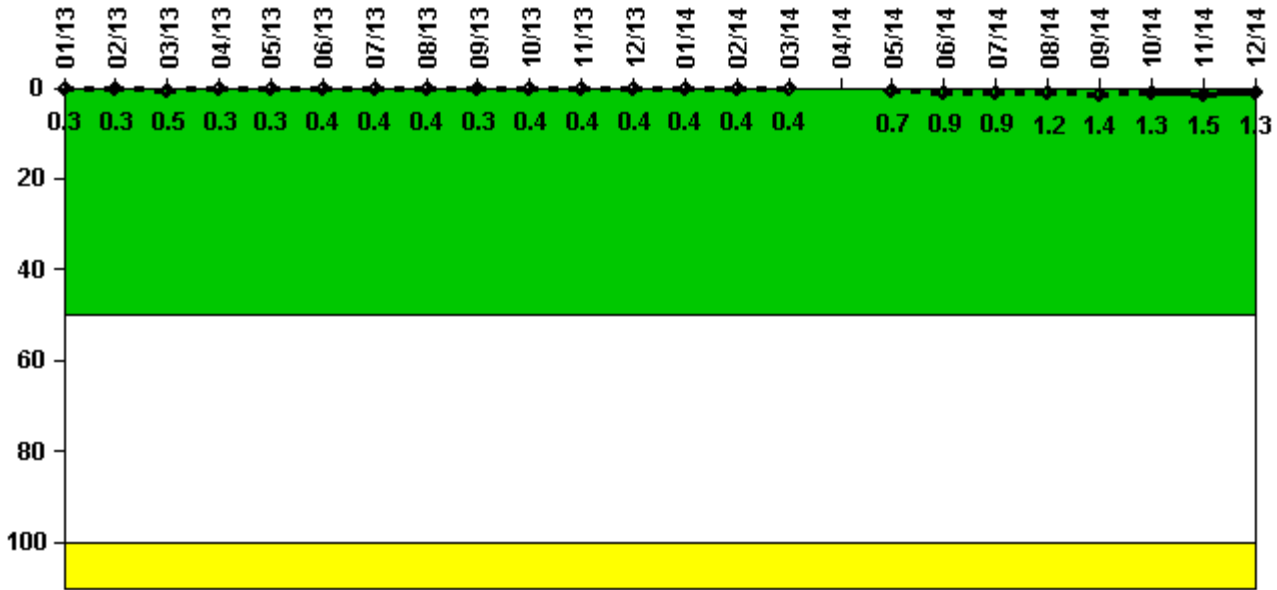
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Activity	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum activity	0.000169	0.000171	0.000179	0.000196	0.000217	0.000211	0.000221	0.000222	0.000212	0.000221	0.000233	0.000242
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Reactor Coolant System Activity	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum activity	0.000250	0.000244	0.000255	N/A	0.000113	0.000121	0.000130	0.000127	0.000133	0.000137	0.000149	0.000154
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.1	0.1	0.1	N/A	0	0	0	0	0.1	0.1	0.1	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



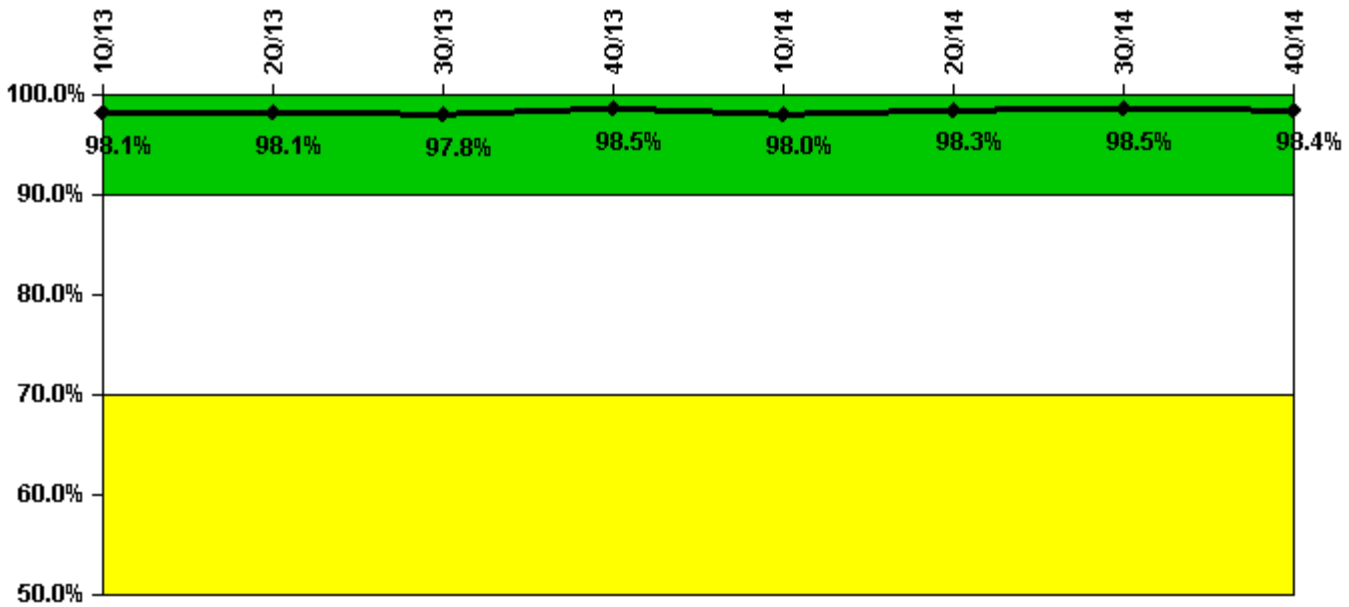
Thresholds: White > 50.0 Yellow > 100.0

#### Notes

Reactor Coolant System Leakage	1/13	2/13	3/13	4/13	5/13	6/13	7/13	8/13	9/13	10/13	11/13	12/13
Maximum leakage	0.030	0.030	0.050	0.030	0.030	0.040	0.040	0.040	0.030	0.040	0.040	0.040
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
<b>Indicator value</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>
Reactor Coolant System Leakage	1/14	2/14	3/14	4/14	5/14	6/14	7/14	8/14	9/14	10/14	11/14	12/14
Maximum leakage	0.040	0.040	0.040	N/A	0.070	0.090	0.090	0.120	0.140	0.130	0.150	0.130
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
<b>Indicator value</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>N/A</b>	<b>0.7</b>	<b>0.9</b>	<b>0.9</b>	<b>1.2</b>	<b>1.4</b>	<b>1.3</b>	<b>1.5</b>	<b>1.3</b>

Licensee Comments: none

### Drill/Exercise Performance



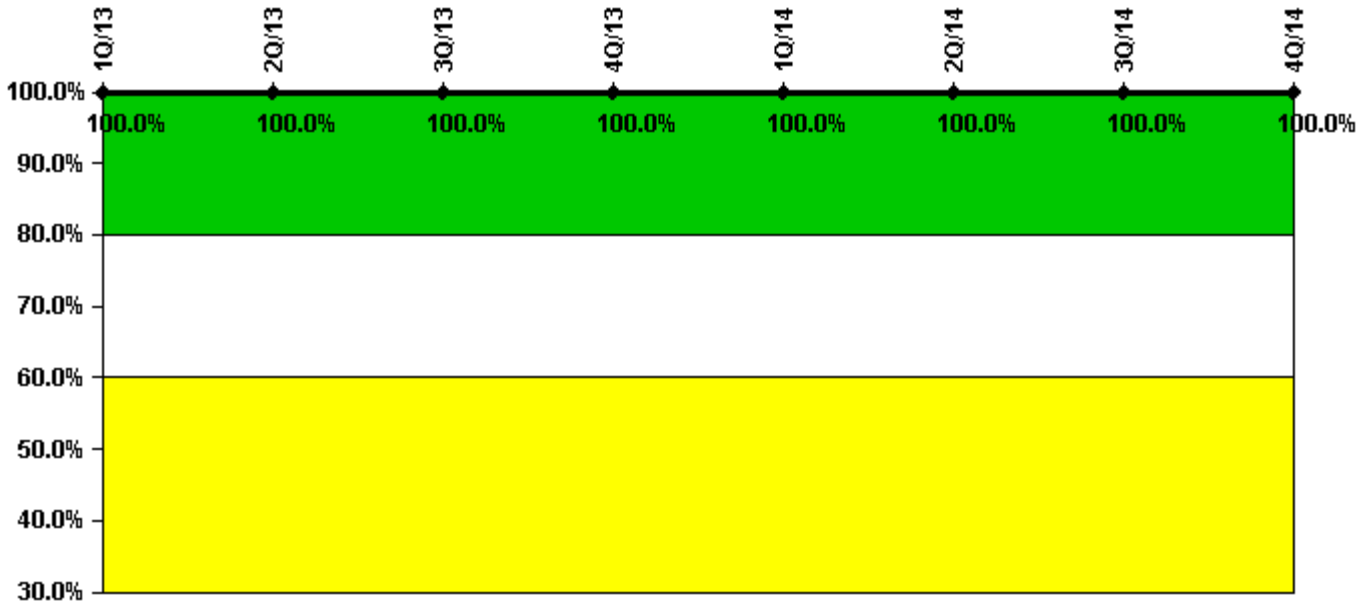
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful opportunities	30.0	49.0	63.0	8.0	30.0	73.0	41.0	77.0
Total opportunities	30.0	50.0	64.0	8.0	31.0	74.0	42.0	78.0
Indicator value	98.1%	98.1%	97.8%	98.5%	98.0%	98.3%	98.5%	98.4%

Licensee Comments: none

### ERO Drill Participation



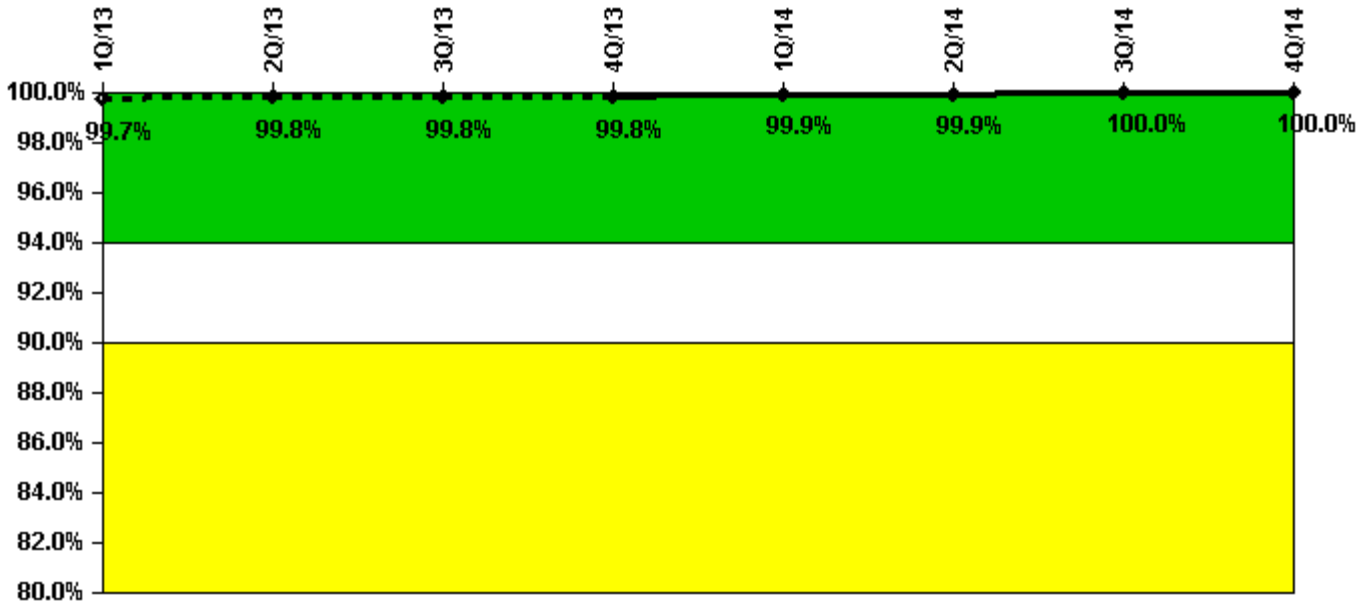
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Participating Key personnel	75.0	73.0	72.0	73.0	72.0	79.0	78.0	76.0
Total Key personnel	75.0	73.0	72.0	73.0	72.0	79.0	78.0	76.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



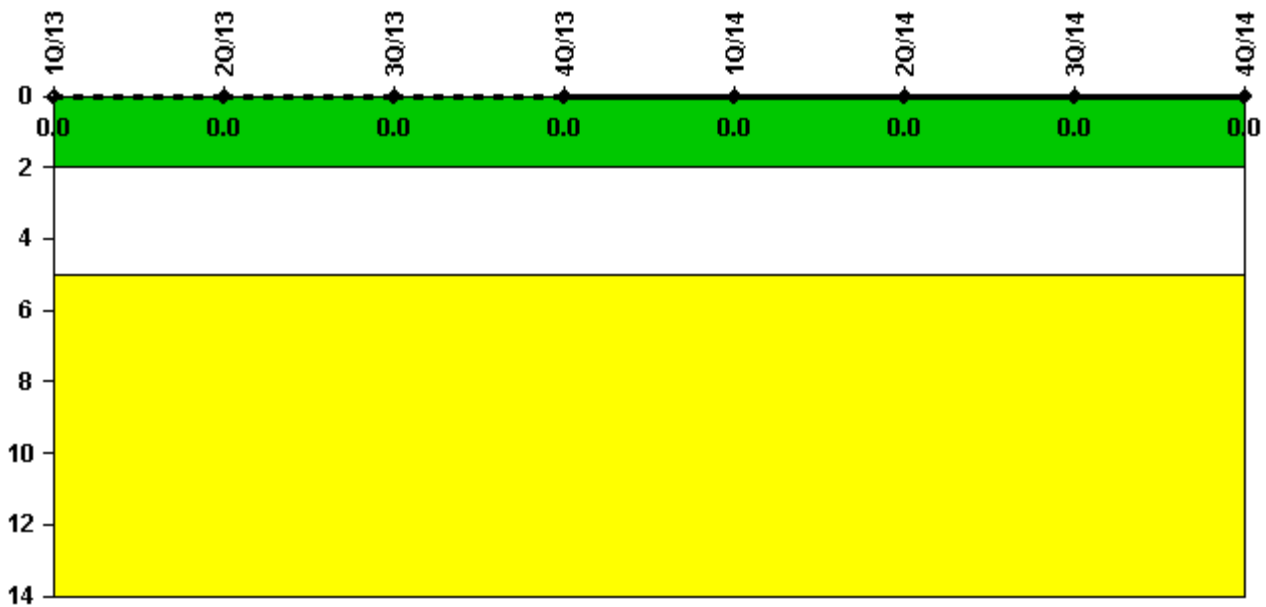
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
Successful siren-tests	887	792	897	700	900	701	909	808
Total sirens-tests	890	792	899	700	900	701	909	808
Indicator value	99.7%	99.8%	99.8%	99.8%	99.9%	99.9%	100.0%	100.0%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



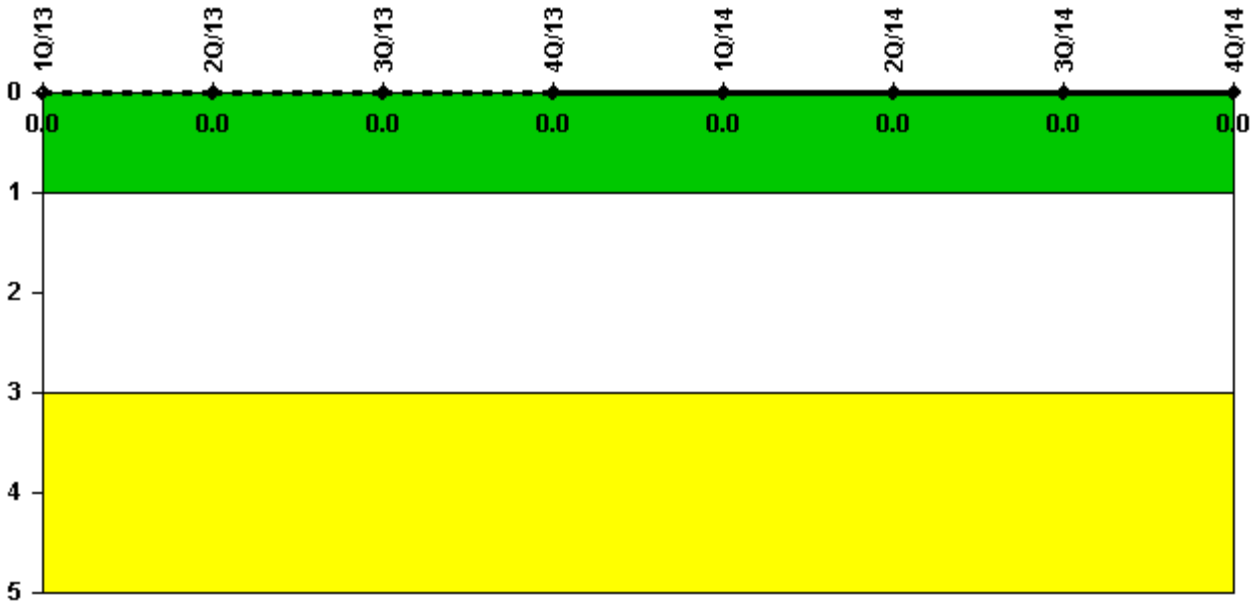
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

### RETS/ODCM Radiological Effluent



Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	1Q/13	2Q/13	3Q/13	4Q/13	1Q/14	2Q/14	3Q/14	4Q/14
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
<b>Indicator value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Licensee Comments: none

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page.



 [Action Matrix Summary](#) | [Inspection Findings Summary](#) | [PI Summary](#) | [Reactor Oversight Process](#)

*Last Modified: February 3, 2015*